

Miss., Ohio; 9th, Ohio; 10th, N. C.; 11th, W. Va.; 12th, Ill., Ga., Iowa, Ala.; 14th, N. J., Ga.; 15th, Mich., La.; 16th, Kan.; 17th, Ill., Pa.; 18th, N. Y., Ill.; 19th, Ind., S. C., Kan., Me.; 20th, Fla.; 22nd, N. J., N. Y.; 23d, Ky., Ohio; 24th and 25th, Me.; 26th, Ill., Wis., Ga.; 27th, Ga., Mich., Wis.; 28th, Ill., Wis., Mich., N. M.; 29th, Ohio, Mich.; 30th, Ill., Mich., Ohio, Ga.; 31st, N. J., La.

*Lunar Halos*.—1st, Iowa, Mass., N. Y., Minn.; 2nd, Conn., Ala.; 3d, N. C., Mass.; 4th, Minn., N. C.; 5th, Tenn., Penn., N. C., N. Y., Dak.; 6th, N. Y., Me., Ala., Minn., La., Fla.; 7th, Mich., S. C., N. Y., Ohio, N. C.; 8th and 9th, Ohio, N. C., Fla.; 10th, Mich., Fla.; 11th, N. C., Fla.; 12th, D. C.; 13th and 23d, Ky.; 24th, Md., Penn., Va.; 25th, Me., Ga., N. M.; 27th, N. C., Fla.; 28th, N. C., Mo., Ga.; 29th, Ind., N. Y., Ohio, Ga., N. C., Mo., Me.; 30th, Iowa, Me., Ohio, Minn., Ga., N. C., Mich.; 31st, Ind., Ohio, Penn., Iowa.

*Mirage*.—4th, Dodge City; 5th, Dodge City, Breckenridge; 11th, Breckenridge; 13th, New London, Revere Beach, Mass.; 21st, New London; 23rd, Breckenridge; 26th, Moorhead, Minn.; 27th, Breckenridge.

*Meteors*.—1st, Wooster, O., Buffalo; 2nd, Vevay, Ind.; 3rd, Lyndon, Ill., Smithville, Davenport; 4th, Carbondale, Ill., Ellinwood, Kan., Trenton, N. J.; 6th, Nottaway C. H., Va., Davenport; 7th, Freehold, N. J., Hanover, Pa., Davenport; 8th, Ellinwood, Kan., Woodstock, Md., Fall River, Mass., Richmond, Neb., Freehold, N. J., Wautoma, Wis., Dubuque, Malone, Davenport; 9th, Lyndon, Ill., New Harmony, Ind., (brilliant,) Vevay, Ind., Woodstock, Md., Fall River, Mass., Corning and Frankford, Mo., Waterburgh, N. Volney and Flushing, N. Y., Duluth, Smithville, Morgantown, Detroit, Davenport; 10th, Lyndon, Ill., New Harmony, Ind., Vevay, Ind., Ellinwood, Kan., Woodstock, Md., Fall River, Mass., Richmond, Neb., Carson City, Nev., Trenton, N. J., Waterburgh, N. Y., Mt. Auburn, O., Dubuque, Dodge City, Morgantown, Malone; 11th, Lyndon, Ill., Vevay, Ind., at Muscatine, Iowa, (10 to 10.45 p. m. 50 meteors observed,) Ellinwood, Kan., Corning and Oregon, Mo., Richmond, Neb., Carson City, Nev., Trenton, N. J., Waterburgh, N. Y., Cincinnati, Dodge City; 12th, Lyndon, Ill., Monticello, Iowa, Ellinwood, Kan., Richmond, Neb., Carthage and Mt. Auburn, Ohio, Smithville, Dodge City, Malone, Davenport, (many;) 13th, Lyndon, Ill., Waterburgh, N. Y., Nashville, Malone, Davenport, (numerous), Indianola; 14th, Lyndon, Ill., Vevay, Ind., Ellinwood, Kan.; 15th, Ellinwood, Kan., Waterburgh, N. Y., Jacksonsburg, Ohio, Hampton, Va., (numerous); 16th, Lyndon, Ill., Ellinwood, Kan., Woodstock, Md., Auburn, N. H., Wooster, Ohio, Smithville; 17th, New Harmony, Ind., (brilliant), Ellinwood, Kan., Woodstock, Md., Waterburgh, N. Y., Davenport, Fort Gibson; 18th, Lyndon, Ill., Corning, Mo., (large, seen at 2 p. m. with sun shining brightly,) Vineland, N. J.; 19th, Wooster, Ohio; 20th, New Harmony, Ind., Ephrata, Pa., Savannah, St. Paul; 21st, Ellinwood, Kan., Woodstock, Md., Corning, Mo., N. Volney, N. Y., Wooster, Ohio; 22nd, Salem, W. Va., Davenport; 23rd, Lyndon, Ill., Vineland, N. J., Smithville, Malone; 24th, Atlanta, Ga.; 25th, Harbor Grace, N. F., San Francisco; 26th, Ellinwood, Kan.; 27th, Hanover, Pa., St. Paul; 28th, Waterburgh, N. Y.; 29th, Lyndon, Ill., (very brilliant W. to E.,) Ephrata, Pa.; 31st, New Orleans, La., (brilliant).

*Polar Bands*.—1st, Hanover, Pa.; 2nd, Newport; 10th, Breckenridge; 11th, Auburn, N. H., Hanover, Pa.; Freehold, N. J.; 19th, Milwaukee; 20th, Detroit; 22nd, Benettsville, Ky., Norfolk; 24th, Hanover, Pa.; 31st, Duluth.

*Earthquakes*.—August 16th, 1:15 p. m., bark "Forest Queen" experienced a heavy earthquake shock of fifteen seconds duration, in latitude  $41^{\circ} 55' N.$ , longitude  $126^{\circ} 25' W.$ ; 16th, 11:25 p. m., shock seven seconds duration, accompanied by a loud rolling noise for twenty seconds, vibration from NW. to SE., at Lower Brule Indian Agency, D. T.

*Icebergs*.—August 3rd, in latitude  $42^{\circ} 59' N.$ , longitude  $49^{\circ} 57' W.$ ; 11th, in latitude  $43^{\circ} N.$ , longitude  $51^{\circ} W.$ ; 12th, in latitude  $48^{\circ} 50' N.$ , longitude  $49^{\circ} 58' W.$ ; 18th, in latitude  $47^{\circ} 15' N.$ , longitude  $47^{\circ} 30' W.$ , six large ones; 19th, between twenty and thirty large bergs, in latitude  $47^{\circ} 45' N.$ , longitude  $48^{\circ} 05' W.$ , largest from 100 to 200 feet high, drifting in a SW. direction; steamer Arbitrator, from New Orleans, 12th, for Liverpool, struck an iceberg, and sunk in thirty minutes on 23d.

## MISCELLANEOUS PHENOMENA.

*Zoological*.—*Swans*, at Keokuk, flying S. 25th and 31st. *Wild Pigeons*, at Pembina, flying SW. 15th and 17th, NW. 25th, N. 27th and 28th. *Wild Geese*, at Wautoma, Wis., flying SE. 13th; Breckenridge, S. 24th; Fort Sully, S. 30th; Pembina, N. 14th and SE. 31st. *Wild Ducks*, at Barnegat, flying S. 20th. *Swallows* last seen at Cornish, Me., 18th; Breckenridge, Minn., 24th; West Charlotte, Vt., 28th. *Bobolinks* last seen at Cornish, Me., 21st; West Charlotte, Vt., 28th. *Night Hawk* last seen at Cornish, Me., 22nd. *Cuckoo* and *Whip-poor-will* last heard at Contoocookville, N. H., 16th and 17th respectively. *Robins*, large flocks flying W. at Shreveport, La., 26th. *Colorado Beetle*, numerous at Mendon, Mass., 4th; appeared on the 1st at Strafford, Vt., but not much damage done; potato crop nearly destroyed by bugs at Albany, N. Y. *Grasshoppers*—Missouri: 6th, appeared at La Mars, Nodaway county. Iowa: 6th, appeared at Storm Lake, Cherokee and Sioux City, column extending to lower Dakota and La Mars, Mo., at Fonda, Pochahontas county, damage slight; 25th, at Unionville, Appanoose county, flying in large clouds at a high elevation, and Des Moines, Polk county, flying towards the Missouri in immense numbers,

"none have yet alighted in central Iowa." Minnesota: Breckenridge, swarms seen on 1st, very destructive 3rd, flying and depositing eggs 6th to 12th; a small red bug, said to be devouring eggs, appeared, but the observer could not ascertain this to be a fact from careful observation; in the western counties, wheat, corn, oats and barley have suffered severely. Kansas: 22nd to 31st, Dodge City, numerous and very destructive, causing entire loss of crops in many sections; 24th, Ellinwood, came from N. and NE., 29th, SW., 31st, NE. and W.; Fort Wallace, flying SW. 19th, N. 23rd, settling 24th; 31st, Atlanta, came in large numbers, injured fall wheat, late corn and gardens, also flying SE. Nebraska: 5th, at North Platte, Lincoln county, entire corn crop destroyed, and in Dawson county one-fourth of crop destroyed; came from Dawson county to Buffalo county; 10th, Clear Creek, flying SW., 11th, NW.; arrived in immense numbers 18th, and remained rest of month; 11th, alighted in immense numbers at Fremont, Dodge county, and commenced on the corn, country near Elm Creek, Buffalo county, cleaned out, column moving in a NW. direction, not many miles wide; 12th, very thick at Columbus, Platte county, came down the valley from North Platte, doing but little damage; at Grand Island, Hall county, loss small; 13th to 26th, at Omaha, numerous at times, flying in all directions; 18th to 31st, at De Soto; 23rd, at Lincoln, Lancaster county, in vast numbers, but not so numerous as in 1874, passing S. and SE. in clouds, corn considerably damaged; 24th to 31st, at Plattsmouth; 25th, in York county, have left nothing but harvested grain. Dakota: 6th, appeared in the extreme southeastern part of the State; 10th to 29th, at Fort Sully, numerous, decreased during 30th and 31st; at Yankton, numerous during early part of month, destroying all the corn, about 10th began to depart, and all gone in a few days; 26th, Bismarek, swarms flying SW. Colorado: 2nd, Denver, came from N. in great numbers, very destructive, 3rd, continued numerous until 11th, had all left by 13th, from 22nd to 28th, flying in air, but few alighting, diminished in number 29th to 31st; 3rd, passed over Pueblo, going north, no damage; 5th, Golden, flying SE. about 6th to 13th, leaving 13th to 16th, returning from NW. 23rd, and flying NW. 24th and 25th; 12th, near Denver, made a clean sweep of the mountain ranches, came in dense, thick clouds, but have mostly moved away; 31st, Fort Garland, air filled, flying with the wind. Wyoming: at Cheyenne, abundant from the 7th to 31st. Montana: millions flying SE. 1st to 5th, at Virginia City, decreased in numbers until 29th, no eggs deposited.

*Forest fires.*—5th, in New Brunswick; 8th to 12th, Carson City, Nev.; 16th, on Campobello Island, N. B.; 17th and 18th, Shelburne, N. H.; 22nd to 31st, Auburn, N. H.; 24th to 31st, Blooming Grove, Pa.; 25th, North Hammond, N. Y.; 27th to 31st, Fishkill Mountains, N. Y.; 28th, in the mountains near Pond Eddy, Pa., vast amount of timber destroyed; around Honesdale, Pa., woods burning fiercely; in Clinton township, Alleghany county, Pa., men fighting the fire; the Moosic Mountains, Luzerne county, Pa., ablaze for miles, a vast amount of timber destroyed, but one rain in this section since July 4th; in the mountains, Essex county, N. Y.; in the Highlands, opposite Newburg, and near West Point, immense surface burned over; 31st, Mt. Desert, Me., raging in woods; Pike's county, Pa., raging with great violence, valuable timber destroyed; St. Lawrence county, N. Y., large quantities of timber, hay and grain destroyed, and some cattle burned; near Boonton, N. J., several thousand acres of bog meadows on fire for a number of days; near North Conway, N. H., large quantities of valuable timber destroyed in mountains.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

*Albert J. Myer*

*Brig. Gen. (Bvt. Assg<sup>d</sup>.) Chief Signal Officer, U. S. A.*

Copy furnished for